Request for Information

Date: December 15, 2006

Project: The evaluation of technologies and products in the Intelligent Transportation System (ITS) realm that can be used for video compression, wireless data transmission and Road Weather Information Systems (RWIS).

Issuing Agency: Michigan Department of Transportation
Van Wagoner Building
425 West Ottawa Street
P.O. Box 30050
Lansing, MI 48909

Introduction

The Michigan Department of Transportation (MDOT) is requesting Letters of Interest (LOI) from private entities (Respondents) that are interested in demonstrating hardware and applications related to Intelligent Transportation Systems (ITS) in either the new MDOT ITS laboratory or in a conceptual outdoor weather information system labratory. Some technologies that the department is interested in testing include; video compression and communications technology compatibility, video monitors (i.e. video walls), wireless communication products and weather information systems. MDOT would like to evaluate the various technologies as part of a pair of functional ITS Laboratories. These ITS Laboratories will demonstrate technologies and equipment from multiple vendors, that are standards based and fully interoperable.

MDOT will consider responses to this Request for Information (RFI) and determine future activities regarding the development of the ITS Laboratory.

Background

The Michigan Department of Transportation is in the process of designing and constructing a new ITS Laboratory in the Lansing area. This ITS Laboratory will be used to investigate new cutting edge technologies in the intelligent transportation world. The objectives of this ITS Laboratory, in the short term, include:

- ⇒ Evaluating interoperability of MPEG-4 video compression devices from multiple vendors.
- ⇒ Evaluating technologies for wireless data and video transmission.
- ⇒ Evaluating the integration of cameras from multiple vendors.
- ⇒ Permitting vendors to demonstrate new ITS technologies.
- ⇒ Evaluating non-intrusive traffic detectors for accuracy in speed, volume and occupancy.

MDOT is also in the planning process to deploy a series of weather information stations across the Upper Peninsula. As part this program, MDOT has heard from multiple vendors regarding pavement temperature and moisture measuring using non-intrusive means. As a result of these discussions, MDOT would like to have the ability to field evaluate various data collection methods and equipment that would be utilized to collect data at a Road Weather Information Station (RWIS). Data collection sensors may include air temperature, pavement temperature, wind velocity, visibility, precipitation, pavement temperature, traffic counting, weigh-in-motion. Sensors would be installed in the field by the owners. MDOT would be allowed to review the data for a period of at least 4 months. At the completion of the field evaluation all equipment will be returned to the suppliers. MDOT will be allowed to retain the data for evaluation purposes. This effort would both enhance the ITS Laboratory in Lansing, as well as an ITS Laboratory for weather systems in Escanaba.

The live video feeds received in the lab will ultimately allow MDOT to verify incidents, monitor traffic flow, and observe roadways during hazardous weather conditions. MDOT would like to use communication and video technologies to be able to not only view these disturbances, but also respond in a timely fashion with the steps taken to solve the problem. MDOT is in search of products to achieve this goal in a cost effective, standards based manner. The objectives of this evaluation would include:

- ⇒ Pavement temperature
- ⇒ Pavement moisture
- ⇒ De-icing chemical presence
- ⇒ Anti-icing chemical presence

In addition to the items listed, MDOT is willing to test and evaluate other relevant ITS technologies, and permit vendors and developers an opportunity to perform research and development of ITS components under live traffic conditions.

Instruction for Responses

Respondents should submit a LOI, stating their interest in working with MDOT on the various components of the ITS Laboratory. This LOI should include a brief description or listing of the components that the respondent would like to provide for evaluation.

The LOI should also include contact information for the respondent, a statement on the respondent's willingness to provide no-cost support for installation, configuration, testing and troubleshooting, a statement on the respondent's vision for the specific test, and a statement to indicate the respondent's willingness to participate in developing a test plan and carrying out that plan.

MDOT has no funding available for this demonstration activity, so all equipment provided by the respondents will be at the respondents cost.

MDOT is not requesting a proposal or detailed plans in response to this RFI. Cut sheet and other product information may be included with the submission. Additionally, this is not a competitive request. MDOT reserves the right to begin discussions with all respondents who submit LOI's.

Although there is a due date provided for these LOI's, MDOT will continue to accept LOI's for the life of the Laboratory. Upon receipt of an LOI from a respondent, MDOT may immediately begin discussions with the respondent.

The LOI should include a statement regarding the publication of the results of the testing. It is MDOT's intent to publish and share any findings as a result of this project.

For efficiency sake, we are asking that the vendor firm provide 5 paper copies (4 bound and 1 unbound) of the Letter of Interest to the MDOT project manager named below. The LOIs will not be returned to the vendor.

Michigan Department of Transportation
Project Manager Gregory Krueger
Van Wagoner Building
425 West Ottawa Street
P.O. Box 30050
Lansing, MI 48909
The due date is January 31, 2007 @ 12:00 p.m. Fax and electronic copies are not acceptable. However, LOI's will be accepted at any time prior to and following this date.

MDOT will review information submitted in the LOI and determine future activities regarding the development of the ITS Laboratory.

Respondents may email Project Manager Gregory Krueger, at kruegerg@michigan.gov for additional information.

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